

1 can find the file, e.g., a complete file extension name, a  
2 beginning memory location, or the like.

3 In cases of a computer controlling a plurality of displays  
4 (or monitors) plurality of sets of files, each set for a  
5 respective display or monitor, is present in computer storage.  
6 The scenario file sets up timing and coordination of sequences  
7 for the playing of the individual file.

8 The timing may be of several types in accord with the  
9 present invention with the goal being to coordinate the displays  
10 of multiple computers whereby if time lag or delay occurs in one  
11 computer, the collective presentation process nonetheless  
12 corrects itself and remains on schedule. In one example, the  
13 time may be a relative time whereby the associated display time  
14 refers to the amount of time that an associated image/sound will  
15 remain displayed/played on the selected graphics screen before  
16 the next image/sound is activated. In another example, the time  
17 may be an absolute time, e.g., 9:00:00.000 A.M to 9:00:00.1,  
18 whereby the display is for one-tenth of a second that starts and  
19 ends at designated times. In another example, the time may be a  
20 collective time whereby each graphics/sound file is activated  
21 based on the end time of another file for a selected delay with  
22 respect to an absolute time. Sound and image files may be

1 played simultaneously, when desired, i.e., the start and/or end  
2 times may be coincident.

3 Thus, in computer step 16, the computer program reads the  
4 scenario file 18 specified in step 14, and constructs a list of  
5 image graphic files/sound files and appropriate absolute,  
6 relative, or delay times. In step 20, the user has the option  
7 to specify a loop count that allows the complete list of files  
8 in the scenario file to be activated a desired number of times.  
9 The default is one and in effect, the presentation will be  
10 presented once if the default is used, twice if the count is set  
11 to two, and so forth.

12 At computer step 22, a start time is specified whereby  
13 the user specifies the exact time to play the first image/sound  
14 file. At step 22, the computer may then calculate the exact  
15 time to display succeeding images, such as for instance, by  
16 adding the delays associated with each image. If absolute times  
17 are utilized, then the timing is already available in the  
18 scenario file. The delay times and starting times may be used  
19 to calculate absolute times, if desired. Thus, the timing can  
20 be effected in different ways with the goal being to coordinate  
21 the overall presentation with, effectively a common clock, based  
22 on the accurate time clock in each computer.

1       At step 24, program 10 runs the scenario when the start  
2 time occurs. In one embodiment, after step 22, program 10 may  
3 first blank the screen, display the time the first file will be  
4 played, loads the first graphics and/or sound file to play into  
5 computer memory as indicated at 26 and waits until the start  
6 time, specified in step 20, arrives. In this way, each computer  
7 screen can be fetched into computer memory prior to the  
8 beginning the presentation to enhance smooth and timely  
9 transitions. At the appropriate start time, step 28 initiates  
10 operation of the sequence of images to be displayed.

11       In a preferred embodiment of the invention, image/sound  
12 files 29 are, in a preferred embodiment, stored on the same  
13 computer which will be displaying the images. This eliminates  
14 the need to transfer graphic files over a network. Typically  
15 such transfers occur at much slower speeds than occur within the  
16 busses of the computer and so tens of thousands of images can be  
17 displayed without delays caused by network transfers of files.

18       Thus, at step 22 computer program 10 has preferably  
19 initialized each computer in which computer program is loaded  
20 and each computer waits until a respective start time which may  
21 be a simultaneous start time, if desired. When the start time  
22 arrives as indicated at step 28, then the respective computer  
23 plays, displays, and/or sounds the beginning or initial file(s)